EXAMINATION OF URWIN'S FRAMEWORK IN INFORMATION TECHNOLOGY PROJECT MANAGEMENT PRACTICES

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DECLARATION

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I hereby declare that this thesis is the result of my own work, except for quotations and summaries which have been duly acknowledged.

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ABSTRACT

Information Technology (IT) projects are organizational investments that require time, money, and other resources such as people and technology. In order to ensure the success of these projects, organizations are adopting project management approaches and setting up project management offices. In spite of this, projects still ended in partial or total failure. Despite the availability of frameworks in IT project management organizations still practice informal and ad hoc development in their project management causing additional costs and project delays or even failures. This study was done to examine the practice of Information Technology Project Management (ITPM) in organizations. The objectives of the study was first to review the existing frameworks in ITPM and then to propose a framework that is appropriate and that could be easily adopted by organizations. The study found that although there are many frameworks that can be adopted these existing frameworks are heavy in documentation and to adopt them required skilled or certified project managers which are not within the means of small and medium size organizations. Based on the review, the study had proposed Urwin's framework as the most appropriate and practical project management approach for this study. This is because Urwin had created his framework of 12 themes after a long and intense study of information systems, information technology and project management literature. The 12 themes are strategy, leadership, scope, participation and commitment, project planning, project team, communication, risk management, training and resources, test management, organization structure and data. Urwin's framework seemed most appropriate and practical because no certification is required and it can be implemented throughout the project life cycle. Also Urwin had showed how to implement each theme by providing a checklist under each theme. To examine Urwin's framework interviews were conducted in two large organizations with two project managers of 15 and 17 years of experience each. Also a survey was conducted in 104 organizations. The respondents are project managers, IT executives, senior level employees and middle level employees with range of experience between two to 15 years. The results showed that all the 12 themes are well implemented in the two large organizations. Results of the survey showed that only three out of the 12 themes are well implemented. Findings from the study suggest that all 12 themes from Urwin's framework must be well implemented to effectively managed ITPM. The study also put forth four recommendations to be practiced together with Urwin's framework. They are executive focus and commitment; effective staffing; learning incrementally from experience; and baseline management.

ABSTRAK

Projek Teknologi Maklumat (IT) adalah pelaburan organisasi yang memerlukan masa, wang dan sumber-sumber lain seperti manusia dan teknologi. Bagi memastikan kejayaan projek, organisasi mengambil pendekatan pengurusan projek serta menubuhkan langkah jabatan pengurusan projek. Namun begitu, masih ada projek yang berakhir dengan kegagalan. Walaupun terujud rangka kerja pengurusan projek IT, organisasi masih mengamalkan pembangunan tidak formal serta secara ad hoc dalam pengurusan projek mereka menyebabkan pertambahan kos, kelewatan projek malah kegagalan. Tesis ini menjalankan kajian untuk meneliti amalan Pengurusan Projek Teknologi Maklumat (ITPM) dalam organisasi. Matlamat utama kajian ini adalah mengkaji semula rangka kerja yang wujud dalam ITPM seterusnya mencadangkan sebuah rangka kerja yang bersesuaian yang boleh digunakan dengan mudah oleh organisasi. Kajian mendapati, walaupun terdapat banyak rangka kerja yang boleh digunapakai, rangka kerja yang sedia ada memerlukan dokumentasi yang banyak dan penggunaannya pula memerlukan pengurus projek mahir atau berkelayakan yang mana di luar kemampuan organisasi bersaiz kecil dan sederhana. Justeru kajian mencadangkan rangka kerja Urwin sebagai asas pendekatan pengurusan yang sesuai dan praktikal. Ini kerana Urwin telah mencadangkan rangka kerjanya yang terdiri daripada 12 tema hasil kajian dan sorotan kesusasteraan yang intensif berkenaan sistem-sistem maklumat, teknologi maklumat dan pengurusan projek. Dua belas tema ini adalah strategi, kepimpinan, ruang lingkup, penyertaan serta iltizam, perancangan projek, pasukan projek, komunikasi, pengurusan risiko, latihan dan sumber-sumber, pengurusan ujian, struktur organisasi serta data. Selain yang tersebut rangka kerja Urwin sesuai dan praktikal kerana tiada pensijilan diperlukan dan ia boleh dilaksanakan sepanjang kitaran hidup sesuatu projek. Urwin juga didapati amat menjelaskan kaedah pelaksanaan setiap tema dengan memberikan sesuatu senarai semak di bawah setiap tema. Bagi menilai rangka kerja Urwin, temu bual dijalankan di dua buah organisasi besar bersama dua orang pengurus projek yang masing-masing berpengalaman selama 15 dan 17 tahun.

Sebuah tinjauan juga dijalankan di 104 buah organisasi. Para responden terdiri daripada pengurus projek, eksekutif IT, staf peringkat atasan dan staf pertengahan dengan julat pengalaman di antara dua ke 15 tahun. Keputusannya menunjukkan hanya tiga daripada 12 tema tersebut telah dilaksanakan dengan baik. Dapatan daripada kajian menyarankan kesemua 12 tema daripada kerangka kerja Urwin perlu diimplementasi dengan baik untuk menguruskan ITPM secara berkesan. Kajian seterusnya mengutarakan empat cadangan untuk diamalkan bersama rangka kerja Urwin iaitu tumpuan dan komitmen eksekutif; pengambilan kakitangan yang berkesan; peningkatan pembelajaran melalui pengalaman serta pengurusan garis dasar.

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LIST OF ABBREVIATIONS

ABBREAVIATION	DESCRIPTION
ANSI	American National Standard Institute
BPM	Building Project Officer
CCTA	Central Computer Telecommunication Agency
CMMI	Capability Maturity Model
CRM	Customer Relationship Management
CSF	Critical Success Factors
EFA	Exploratory Factor Analysis
ICB	International Competence Baseline
IPM	Integrated Project Management
IS	Information System
IT	Information Technology
ITPM	Information Technology Project Management
KMO	Kaiser Meyer Olkin
KMS	Knowledge Management System
OPM3	Organizational Project Management maturity Model
P2M	Project Planning and Project Management
PM	Project Management
PMBOK	Project Management Institute Body of Knowledge
PMC	Project Monitoring and Control
PMI	Project Management Institute
PMM	Project Management Methodology
PMP2	Project Management PRINCE2
PP	Project Planning
PRAM	Project Risk Analysis and Management
PRINCE2	Project IN Controlled Environment
QPM	Quantitative Project Management
RAMP	Risk Analysis and Management for Project Methodology
REQM	Requirements Management
RSKM	Risk Management
SAM	Supplier Agreement Management
SISP	Strategic Information System Planning
TQM	Total Quality Management
UAT	User Acceptance Test
WBS	Work Breakdown Structure

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CHAPTER 1

INTRODUCTION

1.1 Background of Research

Information Technology (IT) projects are organizational investments that require time, money, and other resources such as people and technology. Acknowledging this fact organizations are adopting project management approaches and setting up project management offices (Braglia and Frosolini, 2014) to ensure success in their IT projects. Despite significant efforts to improve IT project success, many still fail.

The study conducted by Standish Group (2015) had reported that 71% of the projects ended in partial or total failure. 29% of the projects were challenged in terms of time, budget and user requirements. A survey conducted by Mir and Pinnington (2014) showed that if project management improved, time and cost could be reduced and profits would be increased.

In answering to this call various organizations used Project Management Methodologies (PMM) to implement their IT projects. According to Charvat (2003) “A methodology is a set of guidelines or principles that can be tailored and applied to a specific situation.”

Organizations can choose to adopt available methodologies or to design their own methodology.

The Project Management Institute (PMI) has provided the most significant Project Management standard, PMBOK Guide (PMI, 2013), currently in its fifth edition. PMBOK Guide is approved as an American National Standard by American National Standard Institute (ANSI) and is recognized by the Institute of Electronics Engineers (IEEE) as an IEEE standard (IEEE, 2009). The PMBOK is regarded as the de facto and the most dominant model in the practice of IT project management and is seen as an execution-oriented discipline (Morris, 2013), whose focus is on delivering projects on-time, on-budget, and to scope.

Apart from PMBOK the next significant and most used in the practice of IT project management is PRINCE2. PRINCE2 stands for Projects In Controlled Environments and is a management approach owned and promoted by the Office of Government Commerce (OGC, part of UK treasury). PRINCE2 was originally aimed for the public sector but has now gained its importance in the private sector. It is a process based method for project management and that its focuses on product make it among the likes in the private sector. PRINCE2 is described as a structured method for effective project management and is much used in the UK (Wideman, 2002).

CMMI (Capability Maturity Model) was developed by Software Engineering Institute and was first released in 1990. It is a framework for organizing and prioritizing activities and provides support for the coordination of multi-disciplined activities that is required to

successfully build a project. This model has been widely accepted around the world, where CMMI has helped many software companies to grow (SEI, 2004).

The above three methodologies, PMBOK, PRINCE2 and CMMI are widely accepted and practiced by most large organizations in managing their projects. In addition to these three methods, there are other not so popular frameworks which are adopted by certain organizations.

P2M (Project Planning and Project Management) was developed by project management association of Japan. This method was introduced to develop many professionals who are capable of handling complex projects. It is a practical guide used by the industrial community in Japan.

ICB (International Competence Baseline) guide was developed by International Project Management Association (IPMA) based on 46 competencies. It requires a competent project manager to oversee its implementation.

OPM3 (Organizational Project Management maturity Model) was developed with input from practitioners using the best practices in project management. It provides the tools and models for continuous assessment and diagnostic techniques to identify problems and deficiencies in projects.

PRICM for project management integrates the three big frameworks namely CMMI, PRINCE2 and PMBOK. It consists of seven stages, five life cycles and associated inputs and outputs.

However, all of these methodologies have their limitations and implementation issues. Morris (2013) criticized PMBOK model in that it neglects the front-end aspects of a project, lacking in definition with strategy, procurement, and finance. The model pays too much attention to the management of the triple constraint (budget, schedule and scope) rather than taking a more comprehensive approach. Also, authors from Critical Management Studies (Cicmil & Hodgson, 2006) highlighted that it is too focused on efficiency and efficacy, and tools and techniques, but not in its context, leaving out important role of ethics, relationships of power, political issue, or interdependencies between project actors. Most of all it is being lamented by practitioners for its heavy documentation (Othman, Zain, & Hamdan, 2010; Waheed, 2014).

Some of the issues raised for PRINCE2 are in its heavy documentation (Wideman, 2002). Moreover, it talks of the implementation in a product lifespan instead of a complete project life cycle and hence it is more of an implementation methodology rather than a project management method. Kirit (2009) reported that many organizations failed in their implementation as they were not able to follow the methods and principles prescribed in PRINCE2.

Zhang and Shao (2011) reported on the difficulty in adopting CMMI as it is very time consuming and like PMBOK and PRINCE2 requires much documentation. The other major

problem reported was the difficulty in using the many processes underpins CMMI framework which had lead to project delay. CMMI were proposed to be adopted in large and very large organizations (O'Connor & Laporte, 2011). Some earlier studies (Sivashanker, Kalpana, & Jeyakumar, 2010; Staples et al., 2007) have reported that CMMI is not suitable to be adopted in small and medium organizations.

Much has been reported on challenges in project management although with the many frameworks that can be adopted by managers and project managers. As discussed above most of these frameworks posed much challenges to put them in practice. To adopt them require a lot of resources but not many organizations have the luxury in terms of people and financial resources. Also the need for heavy documentation in these frameworks makes it less suitable to some organizations.

The various other methodologies listed above also have their own limitations for practical purposes. P2M, a hybrid model requires high expertise and its certification process is rigorous. ICB has 46 competences which are not easy to adopt and its certification process is more vigorous than PMBOK. Another method, OPM3 does not tell users what improvements to make and how to make them. Only consultants with certification from PMT practice this framework. PRICM requires managers with lots of experience and expertise. A lot of these methods require very experienced project managers and hence, can be very costly for smaller and medium-size organizations to adopt.

In 2002 Urwin developed a framework for the complexity of IT project implementation which keeps changing at a very fast pace. What Urwin did was, he carefully studied the

procedures and guidelines of PMBOK and PRINCE2. He then went and identified the variables affecting IT project implementation by thoroughly reviewing information systems, information technology and project management literature. These identified variables exist throughout the entire project life cycle as well as during its pre implementation phase. Using the theme structure as in PRINCE2 Urwin reduced all these variables affecting project management into 12 themes. The themes are; strategy, leadership, scope, participation and commitment, project planning, project team, communication, risk management, training and resources, test management, data and finally, organization structure and processes. He claimed that putting all these 12 themes into practice throughout the entire project life cycle will lead to successful project implementation.

What sets Urwin's framework apart from the others was that he also developed the measurement scales for all these 12 themes which show how each theme may be successfully implemented. In short, he not only documented the themes for successful project implementation, but he also explained how it can be done by providing a checklist for each theme. This makes Urwin's framework easy to adopt and practice and suitable for all types of organizations. In addition the data and test management (part of the twelve themes) are not discussed in PMBOK and also PRINCE2. The absence of these two themes of data and test management is also highlighted by Waheed (2014).

As such, the purpose of this research is to study a framework that can be put to practice and with lesser limitations and at the same time contribute to successful IT project

implementation. The framework to be used in this study is the one developed by Urwin (2002) comprising of twelve well researched themes.

1.2 Problem Statement

There are many existing frameworks (PMBOK, PRINCE2, CMMI) that can be used in the practice of IT project management. The underlying assumption is that these frameworks are used to influence the success of projects being implemented. The study conducted by Standish Group (2015) had reported that 71% of the projects ended in partial or total failure even with the adoption of well-known frameworks.

Baharom, Deraman and Hamdan (2005) conducted a study on 45 organizations to understand current practices in IT project management. The study concluded that half of the organizations surveyed use informal and ad hoc development in their project management. One chaotic implementation was reported by Lucky, Adegoke, and Nordin (2014) and had called for use of checklists or guidelines so as to uphold proper ITPM.

The existing frameworks do not favour much flexibility in their implementation. PMBOK and PRINCE2 require so much resource in terms of project manager's time and attention (Hewagamage & Hewagamage, 2015; Waheed, 2014). These well-known frameworks are also being criticized for being very bureaucratic (Svejvig and Andersen, 2015) and not practical to be practiced in small and medium-sized organizations (Bishop, 2018).

Not many organizations can adhere to adopting these frameworks as some of these organizations were so short of skilled IT personnel and lacking in financial resources. Almomani, Basri, Mahmood, and Bajeh (2015) concluded in their research that lack of adequate knowledge and resources accounts for the major reasons why organizations are not adopting these frameworks in their practice of ITPM. Also most organizations especially small and medium-sized organizations are in the practice of employing less skilled project managers (Rezvani et al., 2016). At times they multi task their employees whereby some junior IT executive are entrusted to helm IT projects (Turner, Ledwith and Kelly, 2012). Prikladnicki, Lassenius and Carver (2018) stressed that any framework that is to be adopted must match with the competency of the project manager or personnel in charge of managing the project.

Therefore this study will take the initiative to investigate on a framework that is less complex in its use. The framework used in this research is Urwin's framework (2002). The framework consists of twelve themes. The framework was developed based upon the de facto frameworks of PMBOK and PRINCE2. In addition the twelve themes in the framework are results from condensing and synthesizing variables affecting ITPM from the IS/IT and project management literature. Urwin's framework is simple in approach. It is practical for less skilled project managers as each theme has its checklists. This makes the framework more practical for use in small and medium size organizations that do not have the expertise and the resources to adopt the other larger frameworks. The study intents to examine the extent to which Urwin's framework are practiced by organizations.

1.3 Research Objectives

1. To review the existing IT project management frameworks.
2. To propose a suitable framework for the practice of ITPM in organizations.
3. To examine Urwin's framework in the practice of ITPM in organizations.
4. To provide recommendations for Urwin's framework to be practiced in organizations.

1.4 Research Questions

1. What are the challenges and issues in existing ITPM frameworks?
2. What is a suitable framework for the practice of ITPM in organizations?
3. What are the appropriate methods to examine Urwin's framework in organizations?
4. What are the recommendations to be adopted from Urwin's framework to be practiced in organizations?

1.5 Scope and Limitations of Study

Due to time and cost constraints the qualitative part of the research was conducted by interviewing only two project managers from large and reputable organizations. The interviews were conducted over three sessions at the convenience of the project managers. Only large organizations were selected for this part of the study because it was felt that large organizations have the resources to hire experienced and knowledgeable project managers who understand the procedures and processes involved in managing an IT

project. Hence, they will be able to provide more relevant answers related to the twelve themes. For the quantitative part of the study which involved a survey of organizations, questionnaires were emailed and posted to project managers and IT executives of about 200 organizations. These organizations were selected based on personal contacts of the researcher and from a list of organizations that have industrial linkages with the researcher's work place. Remainders via email and telephone calls will be done every month to these managers and executives. Time was a constraint and only 2 months was allocated to these respondents to complete and return the questionnaires. Hence, the sample size for this study is limited to the number of completed questionnaires received after 2 months. Since the selection of the organizations is not random, the findings from this study cannot be generalized.

1.6 Importance and Relevance of the Research

The importance of the research stems from the need to improve the practice of ITPM (Baharom et al., 2005). Good practice in ITPM is important as it results in projects to be delivered on time, within the specified budget and meeting all the requirements. Good practice is achieved through the right use of existing frameworks or self-developed methodologies. It is without doubt that these existing methodologies provide clear goals and instructions but are reported to be lacking in flexibility and are not accommodative to certain types of organizations especially those organizations with very low resources.

Reasons for not using any methodology in their ITPM are due to too many deliverables that need to be delivered from the methodology and another reason highlighted is lack of expertise (Bishop 2018; Yazrina, 2002). These demonstrate that there is a need to research on a framework that could address these issues highlighted by (Bishop 2018; Yazrina, 2002) and (Baharom et al., 2005). Therefore, it is clearly indicative that there needs to be a framework that is much less complicated to use and requires much less resources to be adopted in the practice of ITPM.

There is very little research on the use of Urwin's themes in ITPM by organizations. In Malaysia there is none. Hence, this study will be first to examine whether Malaysian organizations (small, medium and large) practice all the twelve themes proposed by Urwin and the extent to which each theme are put into practice. It is hoped that the results will show in which areas or themes these organizations are lacking in implementation. Hence, it will provide an insight to why IT projects in organizations get delayed or fail.

Urwin had provided a checklist (a number of statements) under each theme to determine whether it is fully implemented. If all items in the list are ticked, then that theme is completely implemented. In addition to this approach, this study will also use a quantitative approach by first examining the validity and reliability of the checklist under each theme and determining the degree to which each of these themes are practiced by the selected organizations. This quantitative approach has never been used before. Finally, the findings from this study will contribute to the existing body of knowledge in ITPM.

1.7 Overview of the Thesis

The remaining of the chapters in this thesis is organized as follows:

Chapter 2: Literature Review

This chapter presents discussion of existing frameworks in ITPM. The strength and weaknesses of the framework have been put forth. This chapter also discusses the selected framework to be used in the research and the reasons for selecting the framework.

Chapter 3: Research Methodology

This chapter outlines and discusses the research design undertaken in this study. It explains how the research is carried out using the qualitative and quantitative approaches, the target population, the sample, the research instrument and how the data is analyzed.

Chapter 4: Analysis and Results

This chapter had discussed the findings from the study. The results from the two interviews had shown that large and reputed organizations do seem to understand all 12 themes and do practice all 12 themes when managing their IT projects. The findings from the survey however differ. The study found that while leadership, project team and test management were well implemented, risk management, scope and organizational structure were poorly put in place. Further analysis had identified the areas that were weak in implementation under these themes and the rest of the themes as were discussed at the end of section 4.3.

Chapter 5: Discussions on the findings

This chapter discusses all findings of the survey and case study. This involves discussion that reflects upon the findings from both the survey and the case study. The first part of the chapter discusses on reflection of qualitative analysis and followed by discussion of the quantitative analysis.

Chapter 6: Conclusions

This chapter provides a recapitulation of the results and findings of this research. It draws out the research detail and proposes areas for future research. This chapter also presents critical evaluation of the research process which includes limitation of the research. The chapter concludes with the contribution to subject knowledge and suggestions for future research.

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Appendix B

QUESTIONNAIRE ON PRACTICE OF IT PROJECT MANAGEMENT

Project : ……..

Respondent : ……..

Please complete the following questionnaire by answering the question in the space provided, or by ticking the box which most closely reflects you view of the statement made.

	Introductionary Questions	Answer
	Demographic Profile	
1	Designation/Post in Organization	
2	Age (in years)	
3	Working experience (in years)	
	Organization Profile	
1	What is the size of the organization?	
2	Which Information System has been implemented?	
3	Nature of organization	
4	Industry Types	
5	Organisation Turnover (Approximate)	
6	What is the scope of the implementation?	
7	What is the duration of the implementation?	
8	Why was the system implemented? What were the drivers?	

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	Strategy					
1	The project objectives matched with both the business and IS strategy.					
2	There was an evaluated business case for the project.					
3	There was a review of the procurement process examining the alternative method.					
4	Portfolio risks were identified for mitigation.					
5	Portfolio balancing and alignment was ensured.					
	Leadership					
1	There was effective leadership.					
2	There was one person (or group) in overall change, with strong authority.					
3	The leader provided enough space for subordinates to voice concerns in organization.					
4	There was a conflict resolution mechanism established. (Ability to solve conflict which occurred throughout until implementation).					
5	The leader catered to the individual growth needs of each subordinate.					
	Scope					
1	Project boundaries, phases and deliverable were defined and agreed.					
2	A requirements change management procedure was identified (the IS implementation came together with change management needed).					
3	The project detailing was accurate and details for each sector.					
4	There was a method of measuring success against objectives.					
5	The project was seen as a long-term beneficial requirement for organization.					
	Participation and commitment					
1	There was a positive attitude/commitment from main stakeholders.					
2	There was user participation from all business areas impacted by project.					
3	The necessary political support was obtained.					
4	The end user perceived the new system as useful.					
5	The end user perceived themselves as having some control over the new system.					

	Project planning					
1	There was adequate estimation time allowed.					
2	Where development was involved, a structured method was used.					
3	There were detailed plans at all levels.					
4	Plan were clear to users.					
5	There were small regular and achievable targets.					
6	Project monitoring and reviews were carried out throughout the project.					
7	There was sufficient 'slack' in the project team workloads to allow for contingency events?					
8	There were clear, documented plans for quality assurance and auditing?					
	Project Team					
1	There was a committed executive support.					
2	The executive sponsor held the necessary authority.					
3	The project team understand the business area.					
4	The team was well coordinated and had mutual understanding.					
5	There were effective team working.					
	Communication					
1	There was a communication strategy.					
2	There were regular status reviews for the project team.					
3	There was regular communication with main stakeholders.					
4	There was awareness that users have varying motivation, ambition and ability and the communication needs to be targeted and tailored to their needs.					
5	There was awareness of the organizational culture, or 'way of doing things', affecting user perception and response.					
	Risk Management					
1	There was a full financial analysis undertaken of all project risks.					
2	There was an accurate register of risks.					
3	Risks were sorted into priority, according to impact and probability.					
4	There were regular reviews of the risk situation.					

5	Contingency or back up plans existed for high risk areas.					
6	There was a recognition of potential effects of external factors on project success.					
	Training and Resources					
1	The project team had the necessary technical knowledge.					
2	The project manager had experience of managing successful projects.					
3	The project had access to necessary development tools.					
4	There was training programme established, for all level of staff.					
5	There was use of external consultants where appropriate.					
	Test Management					
1	There was an agreed test strategy.					
2	Co-ordinated testing happened at for example, the unit system and operational level.					
3	The tests were carried out in an ethical and just situation.					
4	User acceptance testing was completed.					
5	The tests were adequate for each system under the project.					
	Organization Structure					
1	The organization structure was changed in implementing the new system.					
2	There was a significant degree of organizational stability prior to the project.					
3	Special attention was given to maintaining the organizational stability.					
4	The structure satisfied all the earlier levels of hierarchy.					
5	The structure altered (negatively/dissatisfying) the daily functioning of organization.					
	Data					
1	Responsibility for data was clearly allocated, e.g. existing data conversion for new system.					
2	Responsibility for management of interfaces between systems was allocated, e.g. legacy systems or retrained specialist applications to new system.					
3	The entire data transfer process was efficiently and effectively managed.					
4	Proper mechanism were put in place for security of data while/after transfer.					
5	The project was well-planned for quick reversal to normal functioning/usage of data.					

Appendix C

Strategy

Before the project was executed, thorough evaluation of the strategy needs to be conducted and verified. Alignment between business strategy and project objectives is fundamental and crucial in this theme.

As in their practice project objectives and business strategy must match for the project to be successful.

meeting the objectives

that alignment between business strategies and project strategies are met.

Leadership

Leadership, strong authority and conflict resolution.

timely conflict resolution in their work

recognized communication channel

a clear vision and these visions are communicated to the rest of the team with enthusiasm and credibility. The leaders also motivate team members

pivoted by the Project Manager but it is important to be supported by senior management. Support by senior management is important so as to get management buy in

Scope

Ongoing process of establishing and managing scope, including boundaries, phases and deliverables, change control, limiting change and method of knowing when you get there.

focus has to be there

requirement change procedure practice

written policies and procedure.

change management had to be incorporated during project planning phase.

suit changing business requirements.

aligned

not understood by the customers thus resulting in scope gap

specification in question here is the requirement

define the scope during the planning stage

understanding of the requirement

Participation and Commitment

People knowing, agreeing and committing to objectives, user groups are involves.

> *getting all our stakeholders to participate in the discussions and put forth their suggestions, so as to avoid any later..."*
>
> *"The company policy is to gain participation from all concerned parties to ensure we are sailing in the same boat."*

team building from stakeholders

dependent on leadership.

Project Planning

Project operational control, based around structured method, plans, targets and monitoring. Reviews and adjustments, all taking quality procedures into account.

adequate time estimates.

good of schedule development

detailed activities were planned at all levels.

visualize the whole project and

involved anticipating risks

project monitoring and reviews

“slack”

contingency events

WBS is the main driver our planning … we focus on proper documentation of plans for maintaining quality.”

need to be a tracking mechanism

include measurement of the actual and keep rebase lining it should somebody slack along the line.

Project team

Executive sponsor with necessary authority. Team understood business area. Effective team working.

as collaboration between users of the system and system developer.

They are a group of interdependent individuals working co-operatively to achieve project objective

having a good executive support is important to relocate budgets and people, coach the project team about how to face challenges in the project development. Executive support contributes greatly in making quick decisions and resolve conflicts. In cases where there were changes in the requirements, agreements from both parties were sought and then only the changes were made to the system.

Communication

Communication strategy, regular status reviews. Regular communication with main stakeholders. Awareness of organizational culture.

importance of informal discussions

ensure the project team understands clearly the business area.

transparent Communication

address this they had project review meeting

the receiver at times do not understand what was being reported".

messaging technique. This helps to put regular tracking of the project in place.

Risk Management

Financial analysis, register, priority, reviews, contingency

risk monitoring involves tracking the project's progress toward resolving risks items and taking corrective action where appropriate.

Risk resolution produces a situation in which the risk items are eliminated or otherwise resolved

regular review of the risk situation

risks surfaced not only from natural event but can also happen where requirements go wrong.

Risks need to be anticipated and mitigated.

Training & Resources

Technical knowledge, experience (successful projects), tools, training at all levels, consultants

necessary training tools.

the training knowledge of the project leader will eventually influence the types of training needed for the users. As said by informant1:

"trainers are a must for our firm, given the vast number of employees doing different tasks, cordinating those is inescapable.."

training programmes established for all level of staff

Test Management

Test strategy, coordinated testing, user acceptance testing, configuration management

a test strategy, a co-ordinated testing, and a user acceptance testing which was completed. They apply User Acceptance Test (UAT) and audit report in their test management.

In the final stages of the systems development UAT was conducted to obtain confirmation through trial or review, that the modification or addition meets mutually agreed-upon requirements.

audit report will be produced

more on the final verification

the test strategy is carefully planned, and also for each level, so as to better coordinate with the overall aim..”

Data Management

Responsibility for data clearly allocated. Responsibility for interfaces clearly allocated.

responsibility for data was clearly allocated and responsibility for management of interfaces between systems was allocated.

practice data quality control initiatives after a few instances of data inconsistencies. With the data control initiatives with respect to the data then should any problem arose it could be detected and rectified.

Organization Structure

Organization structure was changed in implementing system.

Organizational structure is important to provide guidance and clarity on specific human resources issues, such as managerial authority and clear allocation of resources.

Leaders have to always embrace to any change that occurred at the workplace.

It is unavoidable that some implementation brings changes to organizational structure.

The change is massive and at time the change is just minor.

Staffs refuse to accept change in their work. Maintaining organizational stability is important upon implementing the new systems.

This should be carefully thought and planned in the early stage of the project life cycle. All individuals affected by the newly implemented system have to be engaged with training and well informed about the system.

Additional task to the project manager

Themes	Feedback
1. Strategy	The project objectives matched both business and IT strategy and there was a good business case developed. Review at regular intervals. The management viewed strategy as a coordinated approach which relies on multiple project management initiatives such as project management office; upholding continuous improvement in project management methodology; project management training and software training. During product customisation, business managers lay out their requirements and feedback which will ultimately determine the final product. Feedback from business managers are included in reviewing IS/IT plan. Yes our IS/IT plan changes in tandem with changes and requirements in business process. Yes business strategy is the driver to IS/IT strategy. In fact it applies to the whole organisation not just to customer service, sales and marketing.
2. Leadership	Effective leadership with strong authority. There was a strong conflict resolution mechanism in place. Conflict always solved through brainstorming. Brainstorming is well practiced here where any conflict or issue related to work can be discussed…….” “We have adopted a religious approach towards enhancing our conflict resolution mechanism”.
3. Scope	Scope was well defined and proper documentation. Success measured through User Acceptance Test. Any mistake is about money we try to avoid it, but if the mistake occurs, it must be at a very minimal cost.” “It is important to keep checking back with the scope statement throughout the project to make certain you’re delivering what the customer is expecting.”
4. Participation & Commitment	All stakeholders were commited with positive attitude. Good participation form users from business unit. Commitment from main stakeholders. End-users perseived having some control over new system. We will ‘gaduh-gaduh’ until we are satisfied. We prefer to fight first than to fight later on.” “We prefer getting all our stakeholders to participate in the discussions and put forth their suggestions, so as to avoid any later...” “The company policy is to gain participation from all concerned parties to ensure we are sailing in the same boat.”
5. Project Planning	Clear plans with regular achievable targets. Clear documented plans for quality assurance and auditing. Yes… we practice wbs throughout the entire planning phase of the project”. “WBS is the main driver our planning … we focus on proper documentation of plans for maintaining quality”.

	Analyzing the remaining items under project planning revealed usage of structured method for project development, detailed plans at all levels, project monitoring and reviews were carried out throughout the project. Also they incorporated sufficient "slack" in the project team workloads to allow for contingency events.
6. Project Team	Committed executive support and a very effective team that understand the business areas very well. The effectiveness of the project team can make the difference between the project success and failure."
7. Communication	Presence of strong communication strategy. Also strong organisational culture of doing things. Everyone uphold to the culture. Strong and transparent Communication is our main tool for getting our work done". Brainstorming session was also held to ensure the project team understands clearly the business area. "We argued and brainstorm to ensure everybody is satisfied and clear with the system before they step out of the meeting room. We must ensure that the users know what they need in the system, and the developer understands our requirement. I don't care if we have to stay all night because any changes will cost money and money. The team must first know what they need to do". They subscribe to flexible working hours and believed in the importance of informal discussions and strongly advocated these to projects being completed as scheduled. "Without a solid communication strategy it simply isn't possible to keep everyone up to date and informed" "..by communicating with the team members, we know where we as a team are heading.." Communication is the key to successful practice of project management.
8. Risk Management	A lot of things unseen, business impact. We have contingency back up plans to ensure particular vendor take the responsibility.we have regular review of project risk. Yes..we have project risk management...there are certain things unseen..so we have to put awareness to that". At the planning stage of the project, risk is analyzed as an integral part of the Project Charter and Business case development. Throughout the project, risk is monitored closely. Adjustments are made when new risks emerged, and some risks are moderated by project activities. The risks were analyzed and sorted into priorities. The team identifies the risks for each task under various project phases using the project's work breakdown structure (WBS). Milestones were then added to each of the risks planned.
9. Training & Resources	Trained expert users. Project principal conducted training about the products. External consultants employed to train users. In turn I project manager train trained users. trainers are a must for our firm, given the vast number of employes doing different tasks, cordinating those is inescapable.." "we get our expert user trained by an external consultant, so as to

	utilize their skills set for our betterment..”
10. Test Management	We have a test strategy. Coordinated testing took place for example at unit, systems and operational level. User acceptance testing was completed. “the test strategy is carefully planned, and also for each level, so as to better coordinate with the overall aim..” “Testing is a task essential for getting things into operation stage.”
11. Organisation Structure	We have a strong and stable organisational structure. Always embrace to any change that occurred at the workplace. However, there were still staffs that refuse to accept change in their work. *“*whether they want it or not, they have to follow the rule...for example the implementation of our system did not change the whole organization structure..it only affect the business process..” “any change is followed by a series of oppositions, our task is to overcome those and take everyone along and move forward..”
12. Data	We migrate and convert. Responsibility for data was clearly allocated that is existing data conversion for new system. There have been some cases whereby customers’ data was wrongly entered and has created problems to staff in the department. Once a staff had wrongly entered a customer’s order by forty thousand ringgit and the matter was brought up to the attention of top level management. Although seemingly inconsequential, small discrepancies can make a significant difference to the organization’s bottom line. They now practice data quality control initiatives after a few instances of data inconsistencies. With the data control initiatives with respect to the data then should any problem arose it could be detected and rectified.

QUESTIONNAIRE ON PRACTICE OF IT PROJECT MANAGEMENT

Project : ……..

Respondent : ……..

Please complete the following questionnaire by answering the question in the space provided, or by ticking the box which most closely reflects you view of the statement made.

	Introductionary Questions	Answer
	Demographic Profile	
1	Designation/Post in Organization	Project manager
2	Age (in years)	56 years old
3	Working experience (in years)	25 years (Project Manager 15yrs)
	Organization Profile	
1	What is the size of the organization?	2500 staff
2	Which Information System has been implemented?	CRM, ERP
3	Nature of organization	IT
4	Industry Types	IT
5	Organization Turnover (Approximate)	Less than 5%
6	What is the scope of the implementation?	Strategic Planning, IT Delivery, IT Support, IT Maintenance
7	What is the duration of the implementation?	
8	Why was the system implemented? What were the drivers?	Increase Revenue, Reduce Cost

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	Strategy					
1	The project objectives matched with both the business and IS strategy.	✓				
2	There was an evaluated business case for the project.	✓				
3	There was a review of the procurement process examining the alternative method.	✓				
4	Portfolio risks were identified for mitigation.	✓				
5	Portfolio balancing and alignment was ensured.	✓				
	Leadership					
1	There was effective leadership.		✓			
2	There was one person (or group) in overall change, with strong authority.	✓				
3	The leader provided enough space for subordinates to voice concerns in organization.	✓				
4	There was a conflict resolution mechanism established. (Ability to solve conflict which occurred throughout until implementation).	✓				
5	The leader catered to the individual growth needs of each subordinate.	✓				
	Scope					
1	Project boundaries, phases and deliverable were defined and agreed.	✓				
2	A requirements change management procedure was identified (the IS implementation came together with change management needed).		✓			
3	The project detailing was accurate and details for each sector.		✓			
4	There was a method of measuring success against objectives.		✓			
5	The project was seen as a long-term beneficial requirement for organization.		✓			
	Participation and commitment					
1	There was a positive attitude/commitment from main stakeholders.	✓				
2	There was user participation from all business areas impacted by project.	✓				
3	The necessary political support was obtained.		✓			
4	The end user perceived the new system as useful.		✓			
5	The end user perceived themselves as having some control over the new system.		✓			

	Project planning					
1	There was adequate estimation time allowed.	✓				
2	Where development was involved, a structured method was used.		✓			
3	There were detailed plans at all levels.		✓			
4	Plan were clear to users.		✓			
5	There were small regular and achievable targets.	✓				
6	Project monitoring and reviews were carried out throughout the project.	✓				
7	There was sufficient 'slack' in the project team workloads to allow for contingency events?		✓			
8	There were clear, documented plans for quality assurance and auditing?					
	Project Team					
1	There was a committed executive support.	✓				
2	The executive sponsor held the necessary authority.	✓				
3	The project team understand the business area.		✓			
4	The team was well coordinated and had mutual understanding.		✓			
5	There were effective team working.		✓			
	Communication					
1	There was a communication strategy.		✓			
2	There were regular status reviews for the project team.	✓				
3	There was regular communication with main stakeholders.		✓			
4	There was awareness that users have varying motivation, ambition and ability and the communication needs to be targeted and tailored to their needs.		✓			
5	There was awareness of the organizational culture, or 'way of doing things', affecting user perception and response.		✓			
	Risk Management					
1	There was a full financial analysis undertaken of all project risks.	✓				
2	There was an accurate register of risks.	✓				
3	Risks were sorted into priority, according to impact and probability.	✓				
4	There were regular reviews of the risk situation.	✓				

5	Contingency or back up plans existed for high risk areas.	✓				
6	There was a recognition of potential effects of external factors on project success.	✓				
	Training and Resources					
1	The project team had the necessary technical knowledge.		✓			
2	The project manager had experience of managing successful projects.		✓			
3	The project had access to necessary development tools.	✓				
4	There was training programme established, for all level of staff.	✓				
5	There was use of external consultants where appropriate.		✓			
	Test Management					
1	There was an agreed test strategy.		✓			
2	Co-ordinated testing happened at for example, the unit system and operational level.		✓			
3	The tests were carried out in an ethical and just situation.		✓			
4	User acceptance testing was completed.		✓			
5	The tests were adequate for each system under the project.		✓			
	Organization Structure					
1	The organization structure was changed in implementing the new system.		✓			
2	There was a significant degree of organizational stability prior to the project.		✓			
3	Special attention was given to maintaining the organizational stability.		✓			
4	The structure satisfied all the earlier levels of hierarchy.		✓			
5	The structure altered (negatively/dissatisfying) the daily functioning of organization.		✓			
	Data					
1	Responsibility for data was clearly allocated, e.g. existing data conversion for new system.		✓			
2	Responsibility for management of interfaces between systems was allocated, e.g. legacy systems or retrained specialist applications to new system.		✓			
3	The entire data transfer process was efficiently and effectively managed.	✓				
4	Proper mechanism were put in place for security of data while/after transfer.	✓				
5	The project was well-planned for quick reversal to normal functioning/usage of data.	✓				

Appendix E

Interview

R :

Can you, with these 12 themes, prioritize the top most important among these 12 themes?

Mr RJ :

Well, every one of it is equally important for the project, because for me, strategy is equally important because this is where typical project breaks over or makes it. All the other themes are equally important in my practice.

Mr RJ :

I would prefer, if I spent couple of minutes on every one of the phase, then you see every one of phase run let me just run through every couple of minutes. That will give you reasons why this juncture yeah, you can focus on the top 3 but then it is again scenario depend on project, the 3 are going to make it work or because everyone agrees that the 3 pages from the strategies to variance management are all considered important and depends on the situation and the kind of project, it takes the precedence, let say I try to start from the strategic perspectives, lot of the project fail because of that. Because at the end of the day, an objectives of the projects, you know, the way of the feasibility study is done and decided that okay, I want to have this project to meet a particular objective and that the whole thing is not strong and look the project if you ask the guy have you finished the project? He said yes, I meet the timeline, it was within the budget and perfect to the scope and everything is well done but did it meet the objectives? and you will look at not too sure and lot of our project have even the customer when they work to us, our problem is actually asking ourselves every time am I on the right track to meet the objective, imagine objective for the common project is one way for the primary project is another way. Private: let say, if you are talking about the banking sector, their strategies by I'm putting so much on the investment, in this particular project, my return on investment should be like this and then I want to have an increase revenue by x percent. It is a clearly defined objective. So now, a guy who is wanted to do a project, he needs to know all these project, is if going to give him the x percent increase revenue that he is talking about. How is he going to measure it while the project is on. This particular parameter is the number one parameter which determine whether it is going to succeed or fail. That's the business expect of it, the why the strategy is very important and the guy who decides on the project should be making sure that they are putting the right strategy in place to get the objective met them as the same strategy from the government perspective is different, if they maybe saying that, in emigration I am awarding this particular 100 million contract to let say XXX and I expect my service level to improve. Instead of today, if I'm processing like 50 of legation of this automation. I should be able to finish 500 without existing resources of what I already have or with the increase of resources of x numbers and this is another parameter again are all at the strategic level. You don't get it straighten at that level and then make the project bond, you know the project to do the strategies is not really clear, it definitely going to fail or it probably might makes the 50% of the objective then people need to want to make a post-mortem to see it is worth of their investment. Worth the money spent so that's why it's very important and the leadership is a given thing. This one you know irrespective of whatever it is well defined but you don't have a good leader Project Manager is I would consider the person who are the only person that should take accountability if there is a success or failure. This strategy is the strategy of preparing yourself to work with the business people. We the IS and the business people. We have to do interception here. This interception is where we the IS people will interview our client (the business people). Here we probe and probe and justifying the process again and again."

Not that he is the only person performing but he is one guy who know the whether ship is going to sink or saved. It is going to sail today or is it going to sink tomorrow. Project Manager is the only person, he is like the person in the cockpit making sure that it goes in the right direction. His leadership, he cannot be having the spirit of letting go for a second or minutes or if it's a one year project probably if he takes the day off he will still be thinking about the project because during his absence something can go wrong, so that's why leadership is 24 hours 7 days kind of engagement. So that's why I have to prioritize. I will say it's a number one because the strategy is of course it is a management decision to make the project bond which probably will be the next batch but leadership is something where the leadership is of course Project Manager is one part of it but he should be also be given support by senior management because you know sometimes our kind of company irrespective of customers environment or vendor environment management buy in is important. If suddenly, good thing about the XXX when we pick a project, we don't drop it in the middle whether we make money or we don't make the

money is different thing, but what the management looks at this juncture almost on 20 years in XXX but I have not seen we give up in the middle. That's why in our case, projects are, I wouldn't say that we made money in every project but we ensure that every project is completed and of course objective some met fully and some met certain you know a lot of difficulties then we will have to compromise think objective but of course it was a good journey where we get a lot of the lesson learned and we applied for the next project so that we don't repeat the same mistakes again and again.

Effective leadership is not just in the project manager but also leaders in the teams that made up the entire project team. In every team we make sure that there is one person who is gungho that can get work done."

So, leadership is without a doubt a number one and then the scope is third part, the scope is always an argued part this is where our environment become important because when we get a project from a customer, we defined a scope but that scope probably not understood by the customer and that creates a scope gap and if they are not fixed in the beginning and it not continuously put into life mode, at some point in time, the project will die, I got a lot of instances, we have tender, XXX generally is a company more focus on a government project, government project normally comes with a project tender based on specificity we comply and if we don't, we can't comply, let's say we don't comply and if customer understand and still award to us and we pick it up and starts executing. Question is, the requirement, the understanding of the requirement, which is kind of one of the verb of the scope. Customer might want a house with rooms and those kind of facility. You could apply an analogy, I want a car with this, this but the question is they would not clearly say it, they are looking at the Kancil or they are going to look at Mercedes or looking at an apartment or an independent bungalow. So now, when I proposed, if I proposed a Kancil but their expectation based on specification of a Mercedes then our scope differ. So then, there is no way these two can meet at any point then, it is not something like Wira versus Waja kind of thing where some kind of negotiation can happen. So that's why, understanding and agreeing to the scope is very important, sometime our project I would say that it is better to call it off when this kind of scope gap is too big.

It is important to have many checkpoints in managing the scope of the project. We always monitor our project scope in case of scope creep of scope creep. We also have project plan that identifies any deviation from original scope.

Because at the end of the day, otherwise we will end up arguing them, a guy buying a particular requirement. That guy requirement might be security with bigger enhance version of a car or comfort level is something totally different. Then addressing typical lament who is only general category and his focus is barely minimum so these two things cannot be met. So now the question is time of planning stage of the project when you defined a scope they should be sort it of clearly, what I looking at, these two are not matching, how do you match so that both agreed to move forward. If this particular scope is not in agreement then the project is bound to fail.

R : So you have to get back to your client?

Mr RJ :
We generally get it done during contracting, in XXX we have vendor environment is in contract we draw it up and one of the important section in the contract is the scope and what is scope is written there is what its delivered and when customer signed that scope that nears he agrees life respected of what he said in the scope is definitely very important and I don't know about the fourth one be participation and commitment is like a discipline and attitude out of particular thing, which are I would say looking at the leadership so this problem might be there also, I would say that it can be merge together be participation and commitment and it can be at the source level. A person who is executing it or in the management level and as long as their commitment and participation is there, it shouldn't be, I should see that is going to be a major issue. I have to separately track and I will probably it is a given thing, it's a needed thing be its requirement. It is not an easy tasks to deal with your top management, your manager, your leader, your head department etc. you have to handle your customer. You have to handle your vendor. Not forgetting auditor, handle finance".

R : It should be part of the requirement.

Mr RJ :
The next best thing is what its mention in the next phase, which is project planning, this is the, I would say after the first two, leadership and strategy. The third important thing, which is where things can go wrong and here, the problem in most of the project says that as a vendor, planning for ourselves but that where most of the project fail. Because we have to, even Project Management Institute said about environmental factors, it talks about what project are doing and what dependencies you have with rest of the world making their project successful.
Users at times don't know what kind of systems they just know they need a system. In their practice of ITPM in organization B they make sure that detailed plans were developed at all levels. The plans were made clear to all users.

Imagine we are assigned to do something which depends on a particular road compilation. Similarly, let's say, in order for my list project to succeed, it will depend on government some other initiatives to be there first. So now if we don't take those things in our planning and make it a big plan, big picture then you may be able to finish the project but you may not be able to see the outcome. So that's why, planning should consider all environment like vendor environment, customer environment any other stakeholder and participant who will make break this particular project. Any other interests stakeholder, all there should be engaged and planning should have an item in there to say that this is my work as a vendor I do, this is the customer work, as a customer he is to meet and this is an important dependencies of particular milestones and some advisee without which both cannot make the project assumption all these need to be placed and all these needs to be track, this why planning is important and along with planning is the tracking mechanism which is probably I don't know whether the putting it as part of the planning. For the planning generally goes with the plan and measurement of the actual and then keep rebase lining it if somebody slack along the line. How do they base line it. Again, rebase-lining is back to scope because sometimes just because it not that, I'm supposed to finish the project within 6 month. Now I ended up finishing it in one year. But then the additional sequence, additional cost element, so all these things comes in, element cost comes in the scope is changing, so all those things need to be re-based line so that's why it's a continuous process but the planning is very important.

R : For the tracking and milestones normally you would use your own tools?

Mr RJ :
Sometimes, depending on the kind of project, it is a simple project then we may want to settle down with an excel or you want a return paper the limit of only 4-5 milestones and you need to describe it so it just simple. Whereas the complex one we might have actually used project tools like Microsoft Project, Primavera, those kind of thing but in XXX we are more into I mean IT project is generally based on Microsoft Project. Mostly all the transcription industry all used Primavera. There are no right or wrong tools it's all depends on how you want to use it and you want Microsoft Project also. Some people just use it for planning and keep changing the plan to meet the reflecter the later, some really make use of it to the fullest because it does hundreds of parameters in Microsoft Project. We really make use of it. Project team, we generally group the project team and then organization structure and you have the training resources as part of the communication because in XXX we have developed the communication plan, which basically defines the organization structure. This is also equally important, I would say that the communication would be the next important one after the planning and the reason why communication is important is it's a simple messaging technique because for the project manager it is equally important because generally have regular tracking with the Project Management and most of the Project Manager said, "Yes Mr RJ its done already communicating, email, sending a repot, texted him I'll send my reports capture the minute", but one important thing is that missing most of the time or replaced which is the reason why the project fail is the other receiving part, they didn't understand what did they say.

RISK Delay the project, what is the probability of delay low, medium or high? In their practice the risks are assessed one by one. They are put in probability of the risk happening and the impact on delaying the project. They have backup plan in place".

R :
Does it happen very often?

Mr RJ :

Very often, because most of the time what happened is, this is where let say what happen is communication breakdown you will see let say when you are prepared something and gave it to them and that something they say that's not what I wanted, most of the time it happen, in project environment, the earlier we find it out the better it is. But most of the time is that last minute only the customer this is not what I wanted what but this might I wanted is only has 30% of what I wanted whereas the 70% of what I said in the document is missing or it is understood wrongly because we have process let say contract that is define the scope after that we have elaborated on this document, we further says what it is after that if it is require a lot of design then we have plan the design concept and the design is again defined the requirement and again the scope and everyone of it should be connecting the dots all the time. You can't let go of any of the dot missing because that what it is about in project management. You should always make sure that people knew what they are going to get based on the requirement that is told and what is the scope that is promised and this whole process we should not be delivering something like a good cartoon and few project management thing and one person saying they want some kind of hanging thing and that is what I want to do and people understood that actual requirement are a good string and they actually tied it up to somewhere with the rope and rubber tire but then it cannot swing because it got no support but it matches the requirement, it has rope, height, width, the place to sit but what he mention is two or three trees in between the nice swing that is the actual requirement for its deliver is something else so this is absolutely a communication problem

R :

How can you address to minimize this problem in your team?

Mr RJ :

That's why what happen pips we have a project review mating so the main objective of the review mating is to share the progress, review whatever the work done, and to an assessment to say that whatever I have done so far is it in line with what you expect it to be. Imagine we prepare requirement document and give it to them and it can be documenting everything especially when it comes to application development project, that where most of the risk can happen because only when you finish the development you will see, oh this is how the portal looks like, this is how I get in, this is how I my flow is but you prepared a document and the document only talks in text format and of course it might have screen, prototypes, images whatever, but then the real feel is still not there. So now the only way to engage is to review it. To give him a visualization which is virtual but that's very important for him actually start thinking what is he going to get. So this is where one way communication is not good enough, we can say that take the requirement document and read it on your own and come back to me what you did not understand. That is not good enough, what we generally do is, after we finish it we see it with them or continuous review, go to drawing board and also that whatever we say they really need to understand, it is our responsibility to make sure that he understands it because if he don't get it done in that point in time, the design will be based on the wrong requirement, my requirement is wrong design as is based on the wrong development so the whole chain of activities is actually looks as it factory producing nicely but then our outcomes is not what the customer wants. So that is why it is very important to have checkpoint. Here, we have checkpoint meeting, review meeting, document review and brainstorming and all to make sure whatever that is written is communicated and more importantly is the listening part that he understand it and this is where we put it in a communication plan. We define who from the vendor side, who from customer side, who are responsible for what, whose role is what and who is authorized to do what, all these are the communication parameter and then who then will decide on whether this is good to sign off or this is to reject or to accept all those things. Also the time element, how long it should be given to review, so all these things are the communication part and we put it by name so that person is with that particular name and that out chart people know that he comes with this role and responsibility and these authorization. So we don't talk to the working level when there is a change in scope or change in time. It was at certain level, there is a change in scope in certain timeline and it goes to certain level and we define project team, management team and standing off so its direction is properly given at

point when it was needed. Standing off being the top most to make decision in term of funding and dependencies to be escalated those kind of thing that is about communication plan. That covers the team structure, resources, the organization and all. The last important thing is risk management, the difficulties is to give priority for this because risk management is as important as anything else because that something you have to plan for it because it problem in today world is people having difficulties to differentiate between three things, differentiate problem to define the problem, project problem, we called it problem and project issues and what is their risks because they don't have clarity, they always think that oh this risk have to solve by this day, but there is no such thing. Problem needs to be resolved and issues need to be sorted out and action needs to be performed. Whereas risk need to be anticipated and mitigated. Today, when I drop by my project manager, they have this problem they have to segregate because they develop their issue register, their action law, their problem law, risk register. They maintain the thing but they don't know which basket do I put this thing in?

R :

There is issue and problem?

Mr RJ :

Yes, the action that is risk, so they sometimes wrongly put because action is something you have to do anyway. Why you do action? Problem it created but the problem can be solved. It could be a technical problem, it could be people problem but there could be somebody not letting you finish the job, to finish the action.

Delay the project, what is the probability of delay low, medium or high? In their practice the risks are assessed one by one. They are put in probability of the risk happening and the impact on delaying the project. They have backup plan in place".

That's why we called them an issue because that guy is creating an issue. So that needs to be address and resolved because there is no two ways, it has to be resolved. Otherwise, your project will suffer. Whereas risk is to be anticipated, because when I do this particular activity, I'm looking at what could go wrong and if it were to happen how do I address it then to still make sure that my project is intact because the risk is an anticipated event. It may happen, it may not happen and again risk is not necessarily always a threat, it can also be opportunity. Because risk is something happen, somebody is lets say you talk about deployment too, nationwide common agencies setting up server choose mobilization and pc and all. One guy in Hong Kong was manufacturing hard disk suddenly that there is some storm or flood or whatever suddenly the hard disk case is out of stock, you entire hard disk is affected so that's a risk. It's a threat. So now when that happened, so what is the plan? If it is not Hong Kong maybe some other country some other place. And now, in some other place when you do, you might find some opportunity, you might get the hard disk much cheaper than what you get in Hong Kong. That becomes an opportunity. So when there is an opportunity, then your risk mitigation is whether in Hong Kong there is a flood or not. I still want to go to the other one because it got opportunity and plenty in stocks but is it as good as both? So then I go for places, bring it in, then it is an opportunity and it's a better revenue, better profit but the risk is if Hong Kong, there is no guy manufacturing that brand of whatever you want, you only depend on that brand then it goes down then your risk could be negotiating with the customer for an additional timeline or you slow down because there are no other parties to transfer the risk to so this is where the problem is you need to anticipate because you don't know whether the disaster is going to happen or not. It may happen, it may not happen but if it happen, you need to make a risk owner and that owner will initiate the plan. A mitigation plan. He needs to continuously observe if there is risk going to happen or is it not going to happen. At some point in time, when that activities was completed, you can suddenly say that risk is immaterial or not if it didn't happen so not to worry. Internally, vendor environment have provisioning. We called it risk provision. So if particular risk happen, then we might ended up spending a little more because we still need to deliver the project on time but then the risk doesn't happen then that money can be used for, we put it in a risk pool which can be used by some other project. We don't take it as a profit and use it because if you want to make sure that the company will strong, not to charge the risk to the customer. In XXX, if they are in the industry for 30 years, they should have stack of this risk pool already to take care of any of this things. So if I need it, I will take it. If I don't need it, I put it back. So most of the time, putting back is the one seen as managing the risk more prudently so that's when your pool is not disturbed and it is available and then you can be proposing to the customer for a lesser cost and then customer gets an assurance that this guy know what they

are talking about. They have been in this kind of situation before, they have the necessary lesson learned and they are good at applying it and monitoring it. In most of the project, I would say that the least focus is that is risk management. And that is where all the problem will happen and people give surprises.

R :

So in your case, when do you start this risk planning?

Mr RJ :

It has to be at the planning because the thing is if a particular risk happen which is not in your laze, that's mean you are already not planning for it

R :

So you must have the ability to anticipate everything.

Mr RJ :

Exactly. That is where the experience comes in the future. A certified guide can come on board and preach about it but he is not able to anticipate it. So risk anticipation is not necessarily should always be a natural event. It could be requirement going wrong. A simple thing as one stakeholder coming in the middle of the project and starting like "Hey guys, can we go back to the drawing board again? Because I am not comfortable with what you done so far". It happens sometimes. A new guy takes over a project and he becomes a stakeholder and suddenly he realises that my focus is different. "What are you guys doing?" I'm maybe at the stage of development and actually implementing it but this guy comes in and said no no no. your requirement capture this wrong, can we go back. If that's happen, it's a disaster. And that not even anticipated anywhere and if it happen probably on that particular review meeting with him you better capture that as a major risk escape.

R :So that is risk?

Mr RJ :

Yeah, it risk because he is bringing in an uncertainty to the project. We can put the entire thing back to square one. So how to mitigate it? To see who is the previous person actually gave us this and maybe get this two guys talk to each other and you know, there is a reason why this particular requirement is bond right? It can't be a new person comes in and totally shelves it. There is no kind of hand shaking didn't happen or sometime what happen is this guy come on board and will have a different objective and agenda so when that happens you may not be able to convince the new guy at all. So that's when, some other project will say ok fine lets depart as friend. It not going to work because sometimes in the middle of the project it got called off because some guy is not convince that it meets new objectives and his old objectives is no longer relevant. In that situation, he cannot realign the new objectives to meet the common purpose what is the point of continuing the project? So this is where the project manager should make sure that he brings this particular thinking process back to the stating com and request to call it off. Sometimes it happens. If he feels that, both team are not working towards a common goal he needs to recommend, it could be a new project manager or it could be the existing project manager, it could be the new stakeholder on board whomever but as long as they see that its not going to meet the objective or the objective itself is no more relevant then no point in continuing it right? So that's why somebody has to make the decision otherwise you will end up finishing the project but there is no takers. It's not going to be used. We have so many government project and suddenly comes a white elephant and money wasted and people talk about it. Why do you that by the end of the day? Did it improve or did it degrade or did it had one more obstacle on top of it. So nobody has an answer.

Do you keep risk register?

Yes we register and sort the risks according to impact and probability. We normally have at least 15 risks to register in a project".
In risk register you have to add one column, risk happened or didn't happen first week, second week, third week and so on. When it happened check back mitigation, yes or no".
R :

Yeah so there are a lot of issues in project management

Mr RJ :

Yeah

R :

You could write a book. It is so interesting with your experience. Every nook and corner of project management you explain it all.

Mr RJ :

My track record in XXX is generally I get assigned to a troubled project most of the time.

R :

How unfortunate.

Mr RJ :

I take it as ok, that is where I learned a lot of things because I enjoy it for the simple reason that its something straper that doesn't give you that gain. It always good to be fixing the broken one to exactly know what it takes to do one without any mistakes because you first do the mistake because you want to know what impact does this mistake is going to bring. So then you will be aware know that particular thing going on that track we can alert people. Don't go that way, there will be storm there. So that is where the experience plays an important role. And then when it comes to see the book part is more important, the certification part is very important because that gives an edge to convince people. You know like I can tell everything about my experience but if I don't have a reference which can support me then I will have problem because the other guy who is listening to me may want to have a proof. "Eh Mr RJ, you are looking very convincing but can you tell me whether or not its documented whatever you are saying is right way of doing it' because that is where the best practice comes in picture and look at things beyond my guidelines which actually says that this is the right way of doing it, but they don't say that it's the only way, they leave it to us to apply. So I think the rest of the point is actually can be grouped in one of these. We have data, of course data is important because that is where all things can be verified. And again if you are referring to the data from customer, data perspectives also important because that is one more place that things can fail. Something called, there are two kinds of data we are talking here. One is the project data, which actually helps us make assessment like your plan, tracking, base line, scope. Everything is considered data in project. You can always verified to see whether these data trending to the right direction or not. Other data, which we generally used in our technical term is the customer data, these happened most of the time, customer has so much data that needs to be migrated and all those kind of thing. There is where another portion of data migration, data conversion, those kind of thing comes into picture. And again those things are covered in scope at planning stage.

R :

So do you think that these variables can be called like a model?

Mr RJ :

When you said model, you mean what? You expect people to follow?

R :

Yes, to follow.

Mr RJ :

See, that is the trickiest part of the whole equation. That is where people like Project Management Institute, PRINCE2 guy are the problem. That matter, in XXX internally also have a problem because everybody wants to tell us the best practices but they stop short about telling the model because when you say it is a model your expectation is you want people to follow and for the model to work but the question is every project is unique and you can't define a single model that can fit for all of it. Even in XXX we are trying our best to see whether can we held 3 models that's why I mention that we have simple, medium and complex project but again simple is also how do you define. Some base line can be define as simple main it should be less than certain value it should be time wise, it should be anywhere between 2 to 4 weeks to deliver. And again when the value, I can get a project which needs to be delivered a 10 million dollar project that needs to be delivered in 2 weeks. You call it simple or you call it complex? Very difficult to say because in term of money doesn't come in it can make everybody leg difficult. So then its automatically management detention is more call it simple whereas, a complex project is more than 6 month, can sail so smoothly. Absolutely you don't see any problem so now we have defines that simple to follow this, medium follow this, complex follow this but again it is not hard and fast route. I won't say that there is one model which can fit all kind of project and again I would prefer, calling it best practices then trying to call it a model. A model is you need to go by the type of project, complexity of the project , there are so many variance then say this model fits for this kind of project , this model fits for this kind of project , or some project combination of this should suffice and at the end of the day, in XXX, we generally let the project manager decide together with the customer with that fits best for them and then again the decision made at that point keep revisited for a bit of time. So that's why we even have, I myself have weekly engagement with my project manager to make sure that it respect to what model they applied. Are they still working toward the goal? So that is where model can be a guiding factor and again it is very difficult because all these are very common factor. To what extend you want to best live. Let say, risk or communication or it could be as simple as communication, the project is simple. It may be only two part or more that is involved with nothing much could go wrong. I don't need to call for a meeting or present. I can sort it out. Done. So that is also communication. Proper communication plan where 50 of member, maybe I call for one hour meeting when it is important to announce. So there are many variance, so very difficult to fit because when you say model, communication is one part of it but the depth of it very difficult to define it.

R :

You have to assist me so much in your very informative short session. Before I forget, can I know your years of experience?

Mr RJ :

In industry 22 years, in XXX 17 years, in Malaysia 19 years.

R :

Before this?

Mr RJ :

I worked for 3 years in India and then I came to Malaysia.

R :

You have stayed long in Malaysia.

Mr RJ :

In industry experience. I started off as application developer and then went into the normal process. Project Manager probably around 17 years.

R :

How many project have you handled?

Mr RJ :

Probably around 30 to 40 projects because all my projects are long duration one. Span across 2 to 3 years long.

R :

Is organization structure important?

Mr RJ :

Yes, it is part of the communication framework because organization structure are typically people look at organization structure in one level but we in XXX, organization structure in two level. One from XXX side, one from the customer or vendor side and there is always a line across. It is very important because if we are not talking to the right person to get the right thing, we may be working on an unconfirmed requirement. The end of it, it will be something or people don't like.

QUESTIONNAIRE ON PRACTICE OF IT PROJECT MANAGEMENT

Project : ……..

Respondent :R.J

Please complete the following questionnaire by answering the question in the space provided, or by ticking the box which most closely reflects you view of the statement made.

	Introductionary Questions	Answer
	Demographic Profile	
1	Designation/Post in Organization	Project manager
2	Age (in years)	47 years old
3	Working experience (in years)	22 years (Project Manager 17yrs)
	Organization Profile	
1	What is the size of the organization?	600 staff
2	Which Information System has been implemented?	FPX, ERP, IPMS, SCMS
3	Nature of organization	Solutions Provider and IT
4	Industry Types	IT
5	Organisation Turnover (Approximate)	
6	What is the scope of the implementation?	
7	What is the duration of the implementation?	
8	Why was the system implemented? What were the drivers?	ROI, support business change

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	Strategy					
1	The project objectives matched with both the business and IS strategy.	/				
2	There was an evaluated business case for the project.	/				
3	There was a review of the procurement process examining the alternative method.	/				
4	Portfolio risks were identified for mitigation.		/			
5	Portfolio balancing and alignment was ensured.		/			
	Leadership					
1	There was effective leadership.	/				
2	There was one person (or group) in overall change, with strong authority.	/				
3	The leader provided enough space for subordinates to voice concerns in organization.	/				
4	There was a conflict resolution mechanism established. (Ability to solve conflict which occurred throughout until implementation).	/				
5	The leader catered to the individual growth needs of each subordinate.	/				
	Scope					
1	Project boundaries, phases and deliverable were defined and agreed.		/			
2	A requirements change management procedure was identified (the IS implementation came together with change management needed).		/			
3	The project detailing was accurate and details for each sector.		/			
4	There was a method of measuring success against objectives.		/			
5	The project was seen as a long-term beneficial requirement for organization.		/			
	Participation and commitment					
1	There was a positive attitude/commitment from main stakeholders.	/				
2	There was user participation from all business areas impacted by project.		/			
3	The necessary political support was obtained.		/			
4	The end user perceived the new system as useful.		/			
5	The end user perceived themselves as having some control over the new system.		/			

	Project planning					
1	There was adequate estimation time allowed.		/			
2	Where development was involved, a structured method was used.		/			
3	There were detailed plans at all levels.		/			
4	Plan were clear to users.		/			
5	There were small regular and achievable targets.		/			
6	Project monitoring and reviews were carried out throughout the project.	/				
7	There was sufficient 'slack' in the project team workloads to allow for contingency events?		/			
8	There were clear, documented plans for quality assurance and auditing?		/			
	Project Team					
1	There was a committed executive support.	/				
2	The executive sponsor held the necessary authority.		/			
3	The project team understand the business area.		/			
4	The team was well coordinated and had mutual understanding.		/			
5	There were effective team working.		/			
	Communication					
1	There was a communication strategy.		/			
2	There were regular status reviews for the project team.		/			
3	There was regular communication with main stakeholders.		/			
4	There was awareness that users have varying motivation, ambition and ability and the communication needs to be targeted and tailored to their needs.		/			
5	There was awareness of the organizational culture, or 'way of doing things', affecting user perception and response.		/			
	Risk Management					
1	There was a full financial analysis undertaken of all project risks.	/				
2	There was an accurate register of risks.		/			
3	Risks were sorted into priority, according to impact and probability.		/			
4	There were regular reviews of the risk situation.		/			

5	Contingency or back up plans existed for high risk areas.		/			
6	There was a recognition of potential effects of external factors on project success.		/			
	Training and Resources					
1	The project team had the necessary technical knowledge.		/			
2	The project manager had experience of managing successful projects.		/			
3	The project had access to necessary development tools.	/				
4	There was training programme established, for all level of staff.	/				
5	There was use of external consultants where appropriate.		/			
	Test Management					
1	There was an agreed test strategy.		/			
2	Co-ordinated testing happened at for example, the unit system and operational level.		/			
3	The tests were carried out in an ethical and just situation.		/			
4	User acceptance testing was completed.		/			
5	The tests were adequate for each system under the project.		/			
	Organization Structure					
1	The organization structure was changed in implementing the new system.		/			
2	There was a significant degree of organizational stability prior to the project.		/			
3	Special attention was given to maintaining the organizational stability.		/			
4	The structure satisfied all the earlier levels of hierarchy.		/			
5	The structure altered (negatively/dissatisfying) the daily functioning of organization.		/			
	Data					
1	Responsibility for data was clearly allocated, e.g. existing data conversion for new system.		/			
2	Responsibility for management of interfaces between systems was allocated, e.g. legacy systems or retrained specialist applications to new system.		/			
3	The entire data transfer process was efficiently and effectively managed.		/			
4	Proper mechanism were put in place for security of data while/after transfer.		/			
5	The project was well-planned for quick reversal to normal functioning/usage of data.		/			